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Unisonic<sup>®</sup>  
**TOURNAMENT 2000**

OPERATING INSTRUCTIONS AND GAME RULES

TOURNAMENT-2000A

ELECTRONIC  
TELEVISION  
GAME UNIT

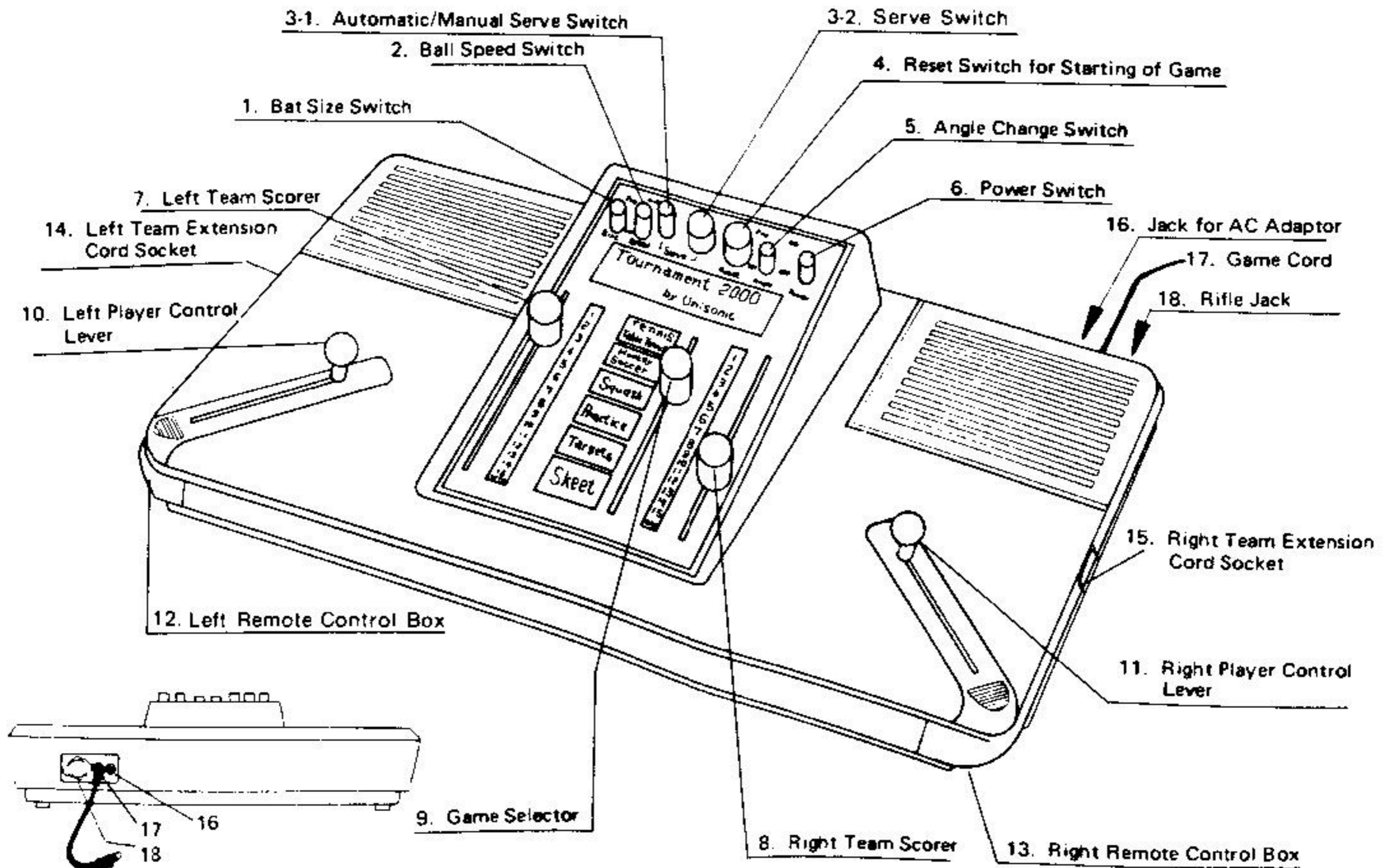
# OPERATING INSTRUCTIONS AND GAME RULES

## TOURNAMENT 2000

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# I. GAME SET SWITCH LAYOUT



## 2. SWITCH DESCRIPTION

### Bat Size (Racket Size)

- Am . . . . . Large bats/players are selected
- Pro . . . . . Small bats/players are selected.

### Ball Speed

- Am . . . . . Low speed is selected.  
The ball takes 1.30 seconds to traverse the screen.
- Pro . . . . . High speed option is selected.  
The ball then takes 0.65 seconds to traverse the screen.

### SERVE

- Auto . . . . . The play restarts automatically after each score.
- Manual . . . . . The play stops after each score. Ringing sound will commence to indicate that the MANUAL SERVE BUTTON is pressed.

- Reset . . . . . Reset the score counters on the screen and start a new game.  
The score display on the screen can be reset to Zero by depressing the "RESET" after the end of the game. Score of 15 indicates the end of a game.

### Angle

- Am . . . . . Two rebound angles are allowed ( $\pm 20^\circ$ )
- Pro . . . . . Four rebound angles are allowed ( $\pm 20^\circ$  and  $\pm 40^\circ$ )

- Power . . . . . OFF. ON.

### Left Team Scorer

- Right Team Scorer . . . . . These right and left scorers have no connection with the "automatic" on screen serving.

- Game Selector . . . . . This selects the various games, (Tennis, Hockey, Squash, Practice, Targets and Skeet)



## **3. INSTALLATION**

### **Batteries**

Open the battery compartment located on the bottom of the unit (See Page 6)

Insert the six C-cell batteries in the battery compartment.

Be certain the batteries are installed in the direction indicated by the picture in the battery compartment.

### **Channel Switch**

The channel switch is located at the left in the battery compartment and is used to select either Channel 3 or 4 for operation of your TOURNAMENT 2000. This switch is normally set at the factory to the Channel 3 position. If a television station is operating on Channel 3 in your area, move the switch to the Channel 4 position.

### **The External Power Jack (AC Adaptor)**

May be used to connect an optional 9-volt external power supply adaptor to your unit instead of using batteries. This adaptor may be purchased at your Unisonic Dealer (See diagram Page 2 for Jack location).

If you are using an AC Adaptor, do not remove the batteries from the TOURNAMENT 2000.

## **Game Cord**

The Game Cord on your TOURNAMENT 2000 should now be plugged into the Jack marked GAME on Switch Box. Always grasp the Game Cord by the plug and not by the cord.

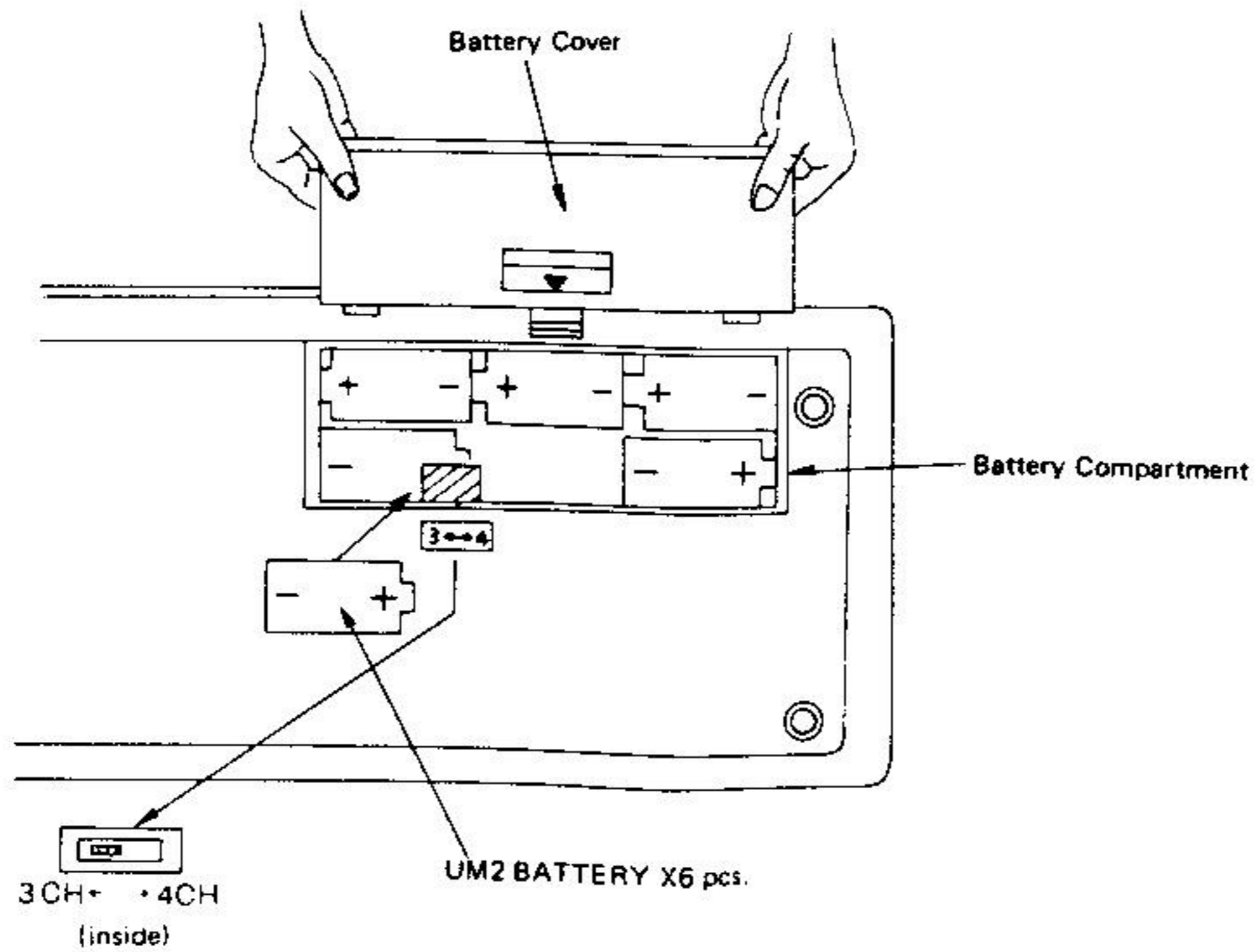
## **Switch Box**

The Switch Box allows you to either watch regular TV programs or play the TV Game just with a flick of the TV/Game Switch. To attach Switch Box to your TV set , be sure game is turned OFF. Plug Game Cord into Jack marked GAME on Switch Box.

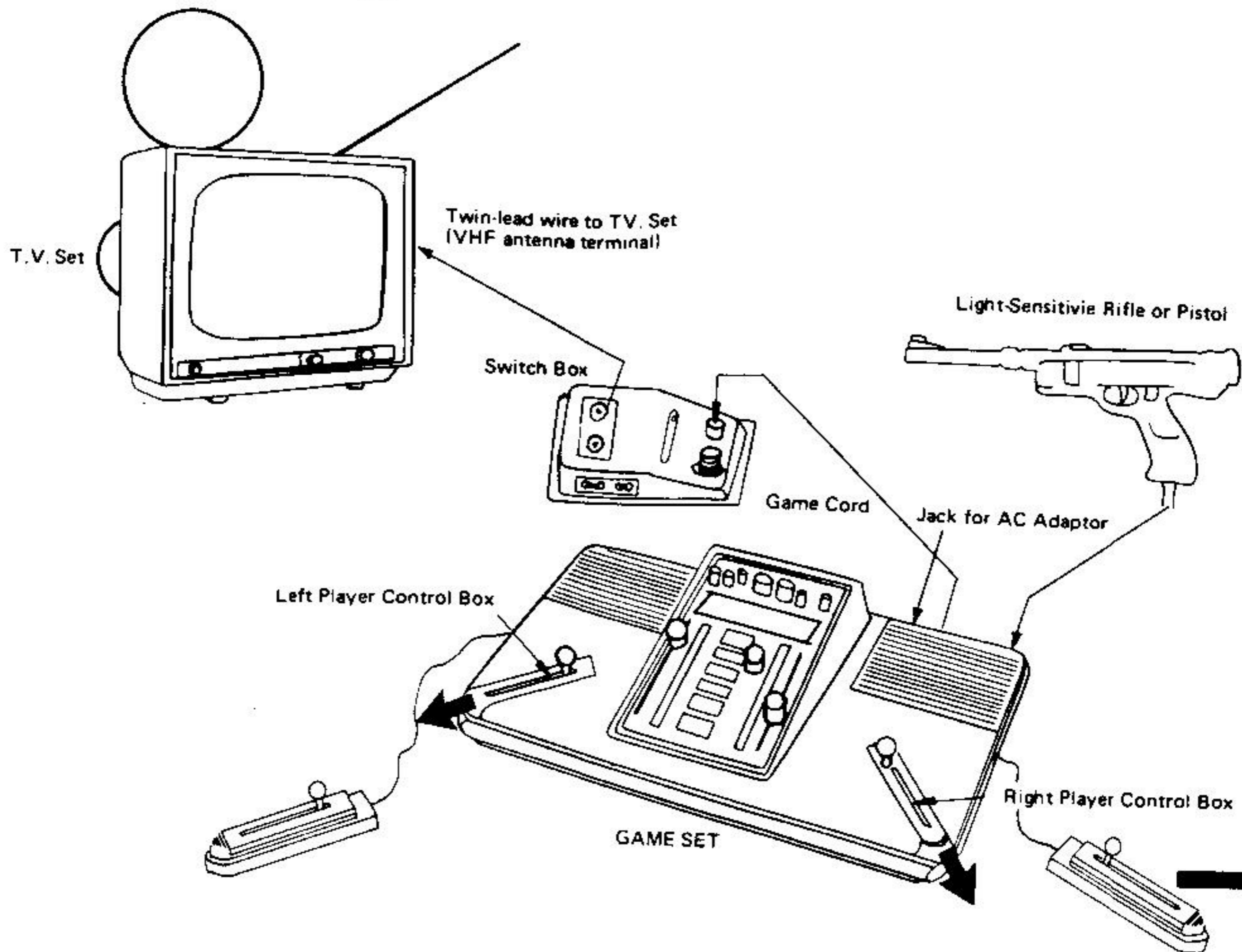
Then attach short Twin-Lead Wire at "TV" marked screws on Switch Box using a screw driver. Refer to the picture matching your TV antenna hook up (Page 9-10). Connect to VHF screws (See Page 8-10), do not remove UHF wire. TOURNAMENT 2000 is played on VHF only. Then hook up Switch Box as indicated. Connect your antenna to either the "75 ohm" or "300 ohm" connectors on the Switch Box, as illustrated.

## **Remote Control Cords**

The player control boxes can be also operated with the long remote control cords. Please refer to the Connection Diagram on Page 7 for the proper connection of remote control cords.



#### 4. CONNECTION DIAGRAM



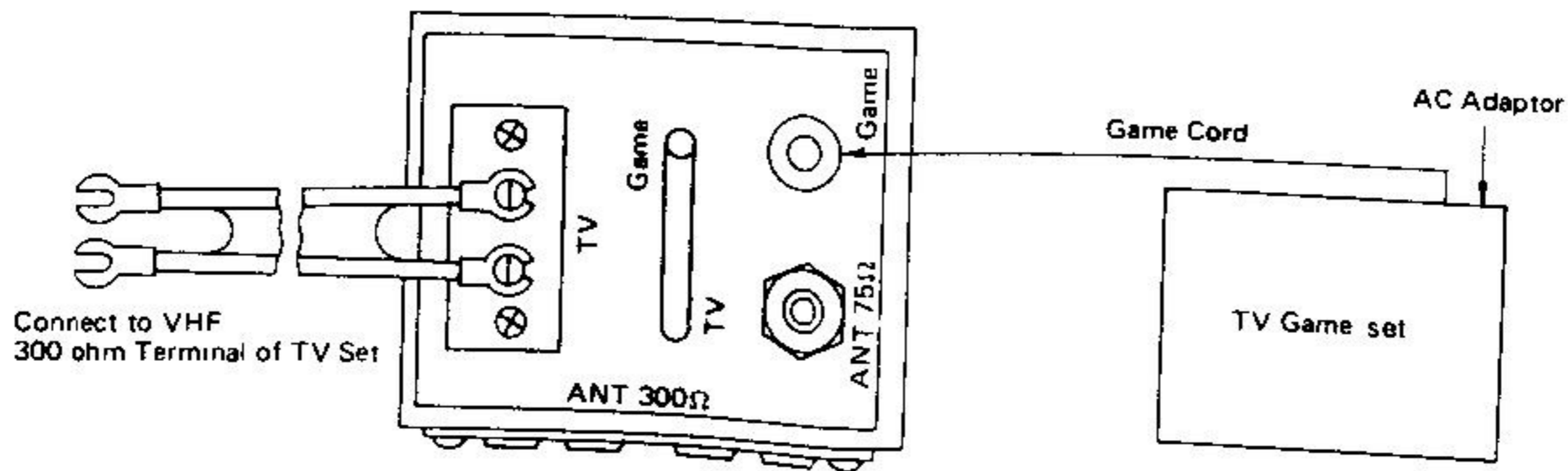


## 5. CONNECTING ANTENNA AND SWITCH BOX

### Antenna and Switch Box

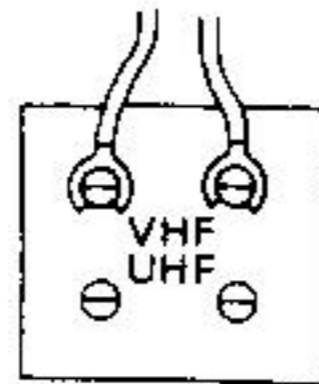
The Switch Box is provided as a convenience to allow you to select either TOURNAMENT 2000 or regular TV viewing, without having to disturb your antenna connections.

After its initial installation, you merely move the slide switch to either game position for TOURNAMENT 2000 or to the TV position for television viewing.



# SELECT THE ILLUSTRATION THAT RESEMBLES THE BACK OF YOUR TV SET

(A)

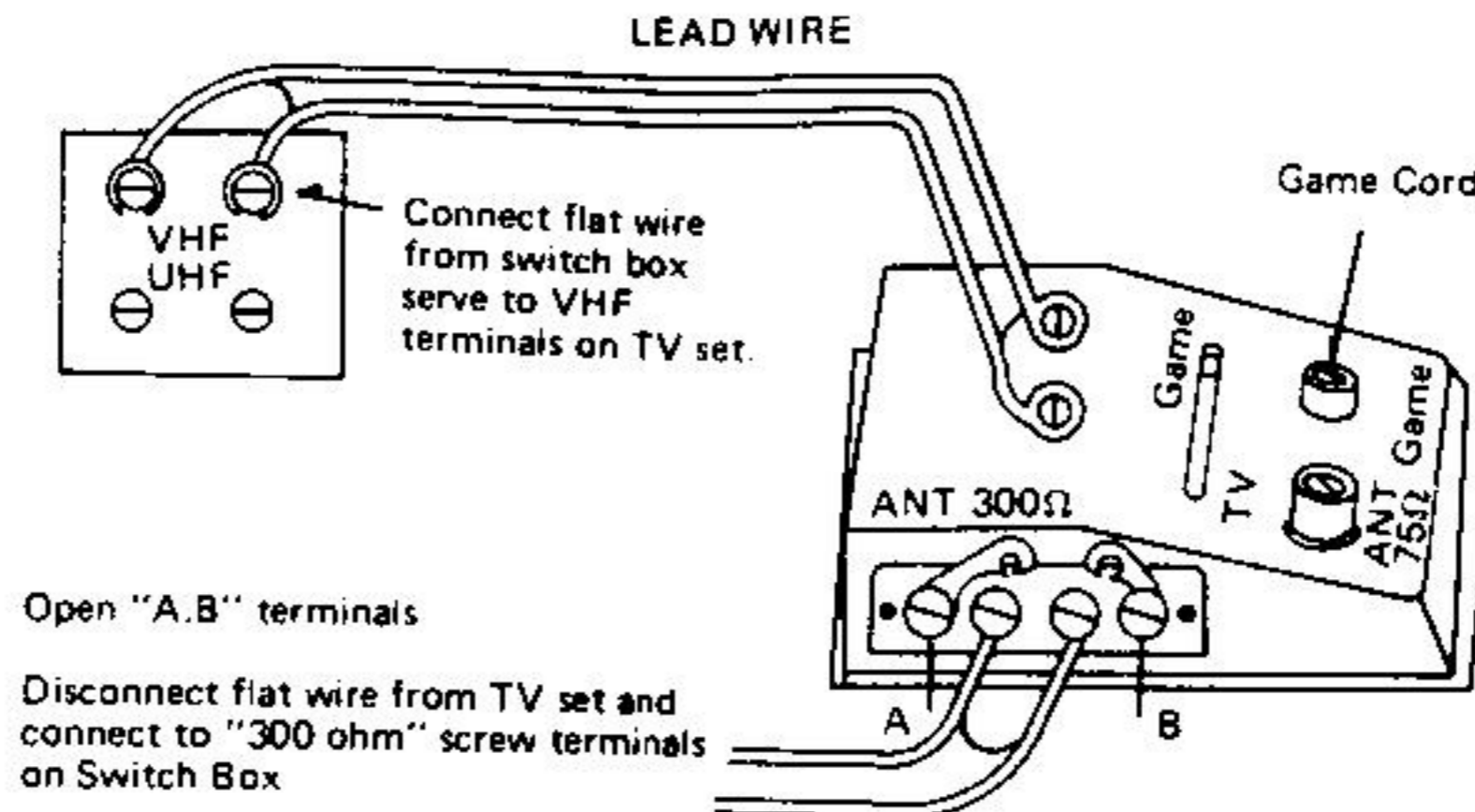


Flat wire attached to antenna terminals

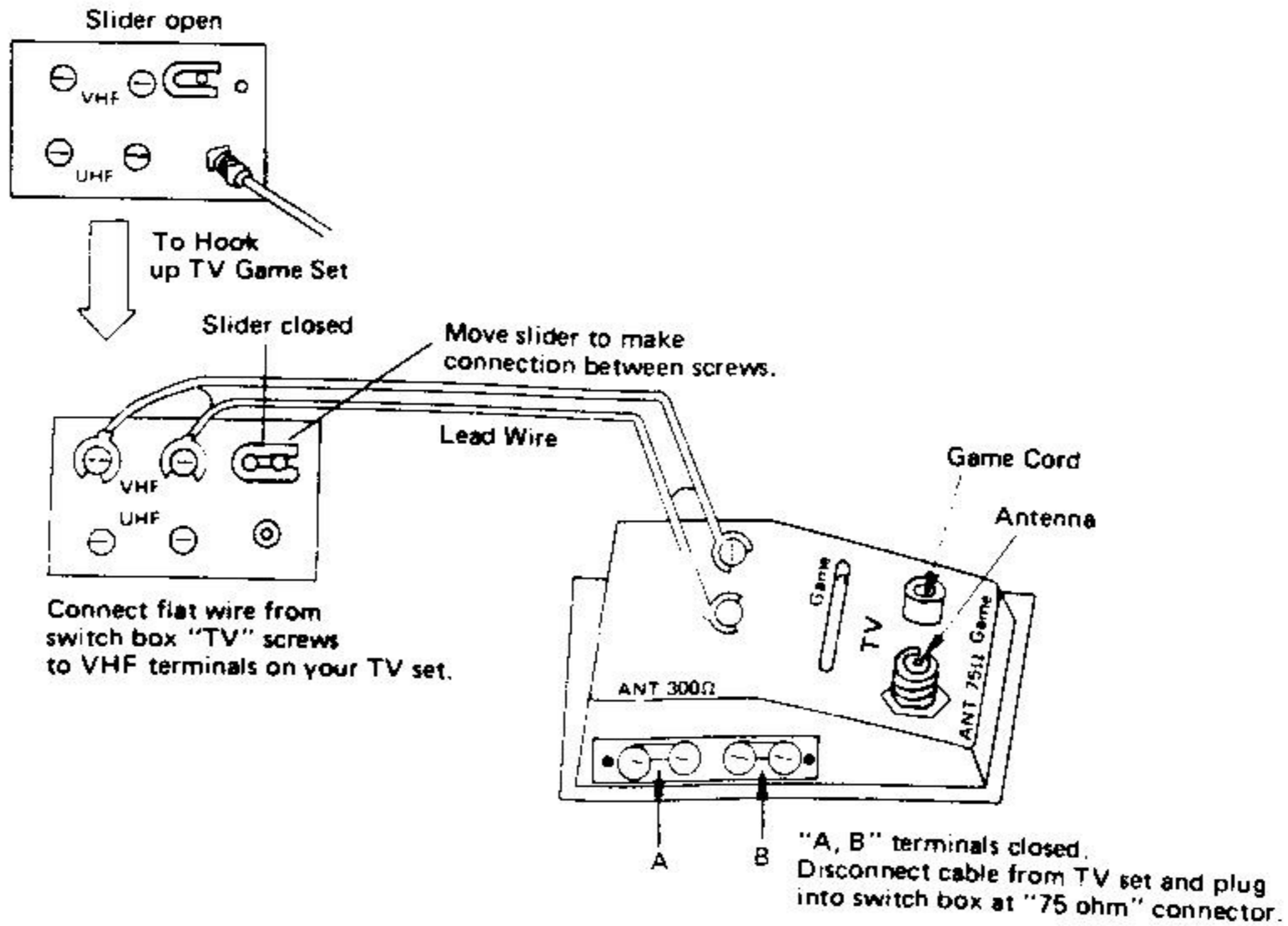


Wire may come from outside antenna, built-in antenna, signal splitter or etc.

TO HOOK UP TV GAME SET



(B)



## **6. HOW TO PLAY**

### **To Play The Game**

- (1) Set the "Power Switch" to the "On" position.
- (2) Be sure Switch on Switch Box is in the "GAME" position.
- (3) Turn on your TV SET.
- (4) Use either Channel 3 or 4 on TV SET.
- (5) Be sure the game pattern appears on the screen.
- (6) Adjust the "BRIGHT" "CONTRAST" and "FINETUNING" knobs properly so that you can get the right picture.
- (7) If the picture is being ghosted, center the picture by adjusting the "VERTICAL" and "HORIZONTAL" hold knobs.
- (8) After selecting the GAME, set the "BAT SIZE", "SPEED", "SERVE" and "ANGLE" controls as you desire.

## 7. PLAYING THE GAMES

### Tennis (Table Tennis)

With the tennis game

The picture on the television screen should be similar to Figure 1-1 with one "bat" per side, a top and bottom boundary and a center "net", the individual scores are counted and displayed automatically in the position shown. The details of the game will depend upon the selection of the options. Considering the situation where small bats and pro angles are used, after the reset has been applied, the scores will be 0, 0 and the ball will serve arbitrarily to one side at one of the angles.

If the ball hits the top or bottom boundary it will assume the selected angle of reflection and continue in play. The player being served must control his bat in order to intersect the path of the ball. When a 'hit' is detected by the logic, the section of the bat which made the hit is used to determine the new angle of the ball.

To expand on this, all 'bats' or 'players' are divided logically into four adjacent sections of equal length. When using the four angle option, it is the quarter of bat which actually hits and defines the new direction for the ball.

The direction does not depend upon the previous angle of incidence. With the two angle option, the top and bottom pairs of the bats are summed together and only the two shallower angles are used to program the new direction for the ball.



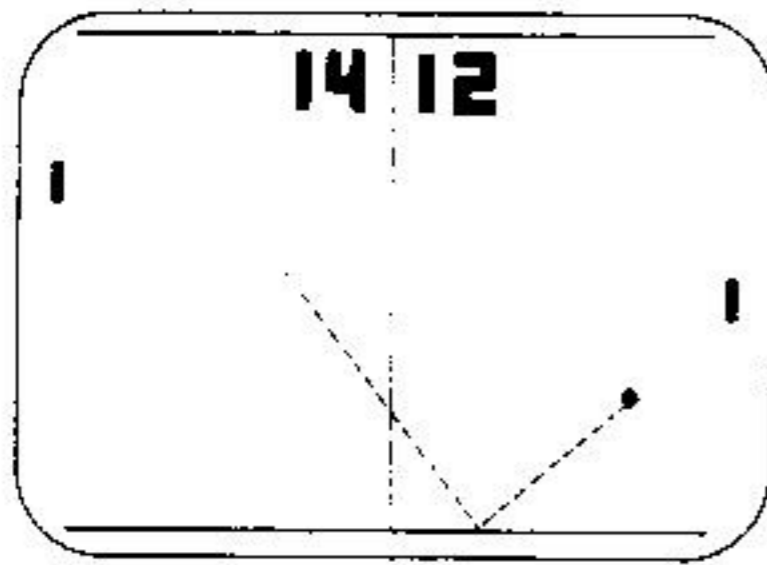


Figure 1-1. Table Tennis

The ball will then traverse towards the other player, reflecting from the top or bottom as necessary until the other player makes their 'hit'. This action is repeated until one player misses the ball. The circuitry then detects a 'score' and automatically increments the correct score counter and updates the score display.

The ball will then serve automatically towards the side which has just missed. This sequence is repeated until a score of 15 is reached by one side, where upon the game is stopped. The ball will still bounce around but no further 'hits' or 'scores' can be made. While the game is in progress, three audio tones are output by the circuit to indicate top and bottom reflections, bat hits and scores.

**Hockey  
(Soccer)**

The hockey type game is shown in figure 2-1, and with this game each participant has a 'goalie' and a 'forward'. The layout is such that the 'goalie' is in his normal position and the 'forward' is positioned in the opponents half of the playing area. When the game starts, the ball will start traveling from one goal line towards the other side. If the opponents forward can intercept the ball, Figure 2-2, he can 'shoot' it back towards the goal.

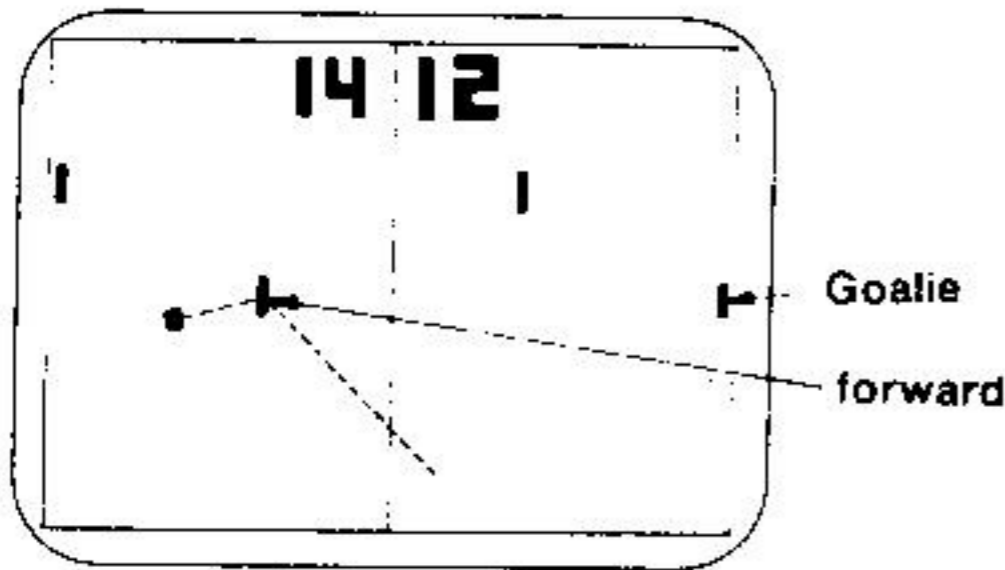


Figure 2-1 Hockey

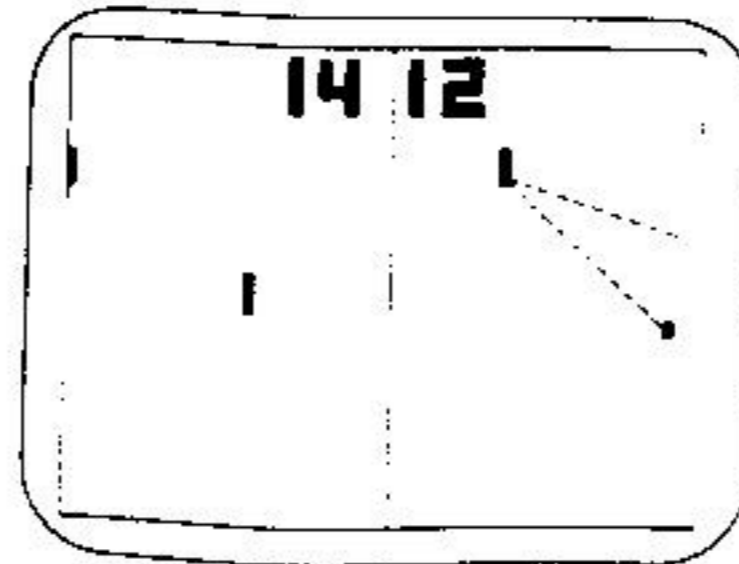


Figure 2-2 Return of goalie rebound

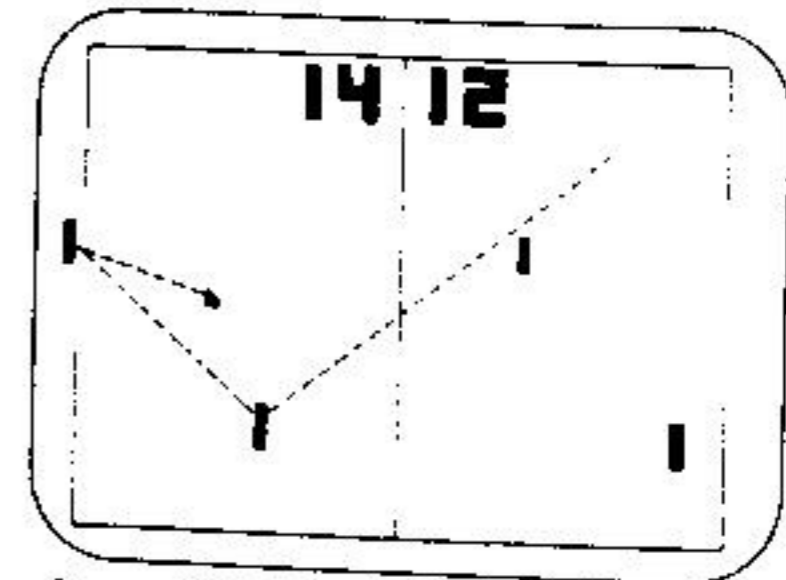


Figure 2-3 Shoot on goal by forward saved by goalie

If the ball is missed, it will travel to the other half of the playing area and the first team's forward will have the opportunity of intercepting the ball and redirecting it forward at a new angle according to the 'player' section which is used, Figure 2-3. If the ball is 'saved' by the 'goalie' or it reflects back from the end boundary, the same forward will have the opportunity to intercept the outcoming ball and divert it back towards the 'goal'.

A 'score' is made in the hockey game by 'shooting' the ball through the defined goal area. The scoring and game control is done automatically as for the tennis game. The same audio signals are used to add atmosphere to the game.

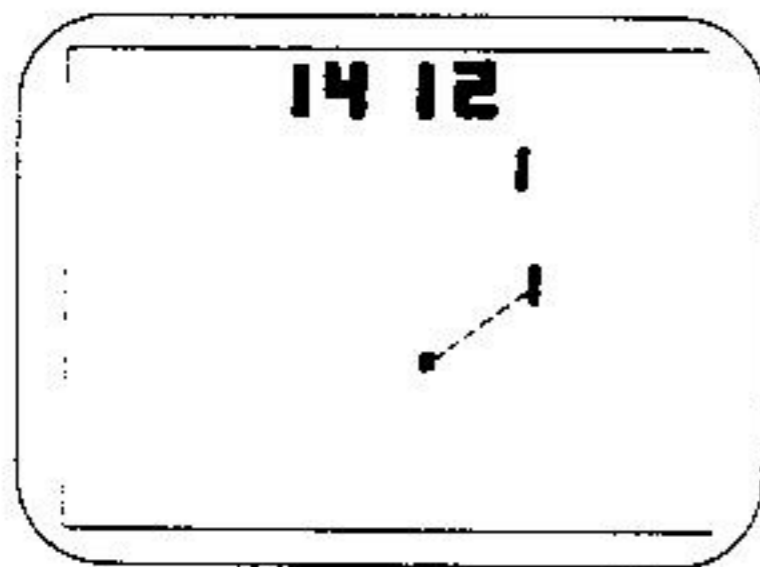


Figure 3-1 Squash

**Squash** This game is illustrated in Figure 3-1. There are two players who alternately hit the ball into the court. The right hand player is the one that hits first, it is then the left hand player's turn. Each player is enabled alternately to hit in order to insure that the proper sequence of play is followed.

**Targets** Since the rifle is sensitive to all light sources, it is important that the room lighting (lamps and sunlight) be adjusted to stimulate the normal light for evening television viewing.

If the rifle is aimed at a light source other than that which appears on the screen (such as a lamp or sun-brightened window), the scoring mechanism will register a hit.

Also note that T.V. contrast or background should be as dark as possible.

This game is illustrated in Figure 4-1. It has a large target which bounces randomly about the screen; a photocell in the rifle is aimed at the target. When the trigger is pulled the shot counter is incremented. If the rifle is on target, the hit counter is incremented and a hit noise is generated. After 15 shots, the score appears but the game can still continue without additional scoring.

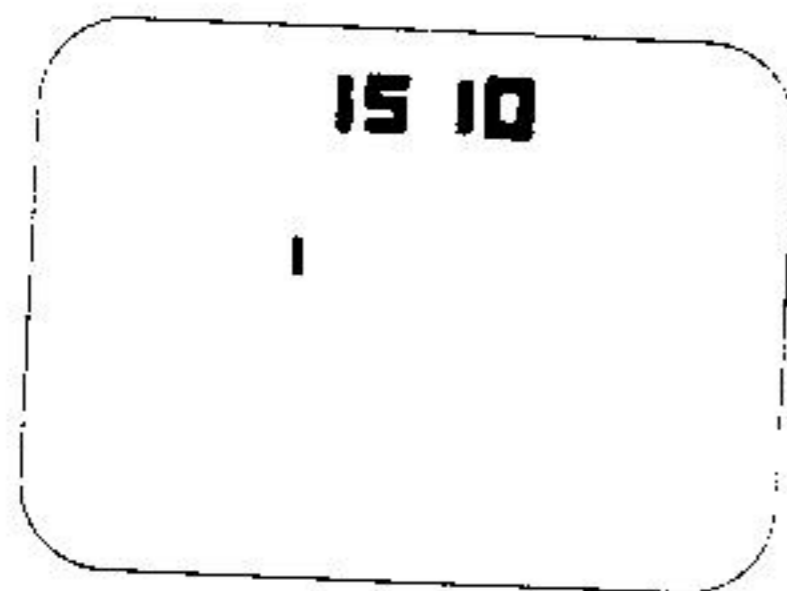


Figure 4-1 (Rifle Shoot)  
Left Score signifies number of shooting  
Right Score signifies the number of hits

**Skeet** In this game, the target traverses the screen from left to right automatically or under control of the manual serve button.

Otherwise the game is as above.

**Practice** This game is similar to Squash except that there is only one player.

### **At the end of Play**

In the case of watching regular TV programs, set the TV-Game Switch on Switch Box to the TV position.

Be sure to set the power switch to the "OFF" position on the TOURNAMENT 2000. You can then watch TV normally.

### **Maintenance**

To replace Batteries, be sure new batteries are placed in correct directions.

An added feature of TOURNAMENT 2000 is that you will not damage the game set if the batteries are facing in the wrong direction. However the Game Set will not operate until batteries are turned to correct position.

To avoid leakage that could damage your TOURNAMENT 2000, batteries should be of good quality.

The UM-2 size Batteries required for TOURNAMENT 2000 are the same as in regular flashlight.

Clean all exterior parts of the game set with a soft, slightly damp cloth whenever necessary.



## 8. TROUBLE SHOOTING

### SYMPTOM

### CAUSE AND REMEDY

No playfield image on screen or whitish-gray screen.

- \*Batteries low, dead, or not correctly installed.
- \*Switch Box set at "TV". Change to "GAME".
- \*Game Cord not properly plugged into Switch Box.
- \*Twin-Lead Wire not properly attached to the rear of TV SET.
- \*AC Adaptor unit not plugged into the wall and/or power On/Off Switch not slided to "ON" position.

No regular TV programs

- \*Switch Box set at "GAME". Change to "TV"
- \*Antenna wire not properly attached to 300 ohm screws (or 75 ohm Cable) on Switch Box.
- \*Twin-Lead Wire not properly attached to the rear of TV SET.

Playfield fuzzy-like weak TV station signal/playfield unsharp-unsteady.

- \*Poor connections at Antenna terminals of TV set or Switch Box.
- \*TV set not fine-tuned for best picture.
- \*Use fine-tuning knob on TV set and adjust.

## SYMPTOM

Set worked before, but picture suddenly unsharp, unclear or unstable.

Top and bottom borders of playfield are not at the equal distances from top and bottom edge of TV picture tube.

Left and Right Borders of Playfield are not at the equal distances from left and right edge of TV picture tube.

## CAUSE AND REMEDY

\*Batteries need to be replaced or set was dropped or hit, causing game to go out of tune. Readjust fine-tuning control on TV set.

\*Adjust vertical height control on TV set.

\*Adjust horizontal control on TV set.

NOTE: THE PISTOL MUST BE OPERATED UNDER CERTAIN LIGHTING CONDITIONS AND IF THE PISTOL SHOULD FAIL TO OPERATE, PLEASE RETURN THE PISTOL ONLY AND NOT THE ENTIRE GAME SET.

TARGET AND SKEET MAY NOT OPERATE PROPERLY ON TV SET WITH VERY SMALL SCREENS. FOR BEST RESULTS, IT IS RECOMMENDED THAT YOU PLAY TARGET AND SKEET ON A 15 INCH, 16 INCH, 19 INCH OR LARGER SET. REMEMBER TO ADJUST CONTRAST SO THAT THE BACKGROUND OF THE SCREEN IS AS DARK AS POSSIBLE.

## Rifle Attachments

Rifle attachments can be assembled as illustrated below.

